

**MULTI-MODE SMART CARD, SYSTEM AND ASSOCIATED METHODS**

**Abstract of the Disclosure**

A multi-mode IC is provided for operating in a first mode such as an ISO mode in accordance with International Standards Organization 7816 (ISO 7816) protocol, and a second, non-ISO mode, such as a USB mode in accordance with Universal Serial Bus (USB) protocol. The multi-mode IC is preferably in a smart card and includes a microprocessor and an external interface. The external interface comprises a voltage supply pad, a ground pad, a first set of pads for the first mode, and a second set of pads for the second mode. The first set of pads preferably include a reset pad, a clock pad and an input/output pad in accordance with the ISO 7816 protocol, and may also include a variable supply voltage pad in accordance with the ISO 7816 protocol. The IC further includes a mode configuration circuit for detecting a mode condition on one pad of the first set of pads, and configuring the IC in the ISO mode or the non-ISO mode depending on the result. Once the IC is configured in a particular mode, it will operate in only that mode until the next power-on reset sequence.

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